European Journal of Business and Management
ISSN 2222-1905 (Paper) ISSN 2222-2839 (Online)
Vol.9, No.35, 2017

An Investigation of Trend and Compositions of the Government Expenditure in Bangladesh

Mahmuda Akhter Khanam[1] Dr. Firoja Akter Khanam[2]
1.Lecturer, Chittagong University of Engineering and Technology (CUET)
2.Associate Professor, Department of Finance, Chittagong University (CU)

Abstract
In Bangladesh, the government spending policies of the national budgets have been assigned a key role in the economic development and growth process. However, they could have detrimental ramifications if obscurely managed. Thus, the nature and degree of this expenditure and revenue patterns determine the overall quality of the government finances in Bangladesh. The main aim of the present study is to evaluate the changing patterns of the heads of expenditures, their trends and compositions over the period of 1975-2015. This paper is mainly based on tabular representations. However, some statistical tools also have been used when necessary. It is revealed from the study that although government spending increases steadily, but the composition and patterns of government spending has changed dramatically. The sharp increase in the total government spending is mainly because of continuous increase in revenue expenditure which created serious imbalances in the fiscal sector of the economy. Thus, it is evident from the study that although total public expenditure is rising in Bangladesh, development expenditure actually squeezed in the country to maintain rising revenue expenditures. In addition, sector-wise allocations to public resources have been reduced for some key sectors that are directly productive in nature like agriculture and manufacturing industry. At the same time, increased proportional allocations of resources to sectors like education and health have been realized.
Keywords: Government expenditure, Revenue Expenditure, Development Expenditure.

1. Introduction

Bangladesh reached a lower middle economy status in FY15 by attaining per capita income of USD $1,314. Article 15 of the Constitution of the People's Republic of Bangladesh requires that the country should follow the path of a planned economic growth for realizing its development objectives. In Bangladesh, the main objectives of public expenditures are to improve the living standard of the people, develop human resources and physical infrastructure and reduce poverty. Thus, rapid economic development is possible only through government expenditure.

An increase in government expenditure puts a ripple effect in the economy by raising aggregate demand and productivity, which eventually leads to a higher level of employment and wages and thus reduces poverty by accumulating wealth with a favor to the poor people (Hassan, 2007). Bangladesh is currently undergoing substantial structural and macroeconomic changes. How the size and composition of government spending influences these changes are not particularly clear. Thus, it is important to monitor the composition of government spending and to assess the causes of change over time. Examining the composition of total spending will reflect the government priorities and policies. Therefore, the study will try to find out the changing composition, pattern and trends of government expenditure using annual budget data of 38 years.

2. Literature Review

There have been numerous studies on the role of government spending in the long- term growth of national economies. Barro (1987) uses the British data from the start of the eighteenth century through World War I to study some of the economic effects of government purchases. After developing a theoretical model, he explores the effect of temporary military spending on long-term interest rates. Thereafter, he investigates the effects of military spending on the price level and the quantity of money. He concludes that an increase in resources devoted to non-productive (but possibly utility enhancing) government services is associated with lower per capita growth. Tanzi and Zee (1997) finds no relationship between government size and economic growth.

Afonso, *et .al.* (2008) analyze the impact of public spending, education and institutions on income distribution in advanced economies. They also assess the efficiency of public spending in redistributing income by using a DEA (Data Envelop Analysis) non-parametric approach. They find that public policies significantly affect income distribution, notably via social spending and indirectly via sound economic institutions. They also explain public social spending inefficiencies for the OECD countries within a two-step approach called non-discretionary factors.

Rajkumar and Swaroop (2008) measure the links between public spending, governance, and outcomes. They examine the role of governance–measured by the level of corruption and the quality of bureaucracy–in determining the efficacy of public spending in improving human development outcomes. It is empirically found that the differences in the efficacy of public spending can be largely explained by the quality of governance. Public health spending lowers child mortality rates more in countries with good governance. Similarly, public spending on primary education becomes more effective in increasing primary education attainment in countries with good

governance. More generally, public spending has virtually no impact on health and education outcomes in poorly governed countries. The study is particularly relevant for developing countries, where public spending on education and health is relatively low, and the state of governance is often poor.

Brady and Lee (2014) investigate the sources of changes and cut in government spending as a percentage of GDP in 17 affluent democracies from 1971 to 2008. The analysis offers four unique contributions. First, they synthesize and build upon multiple theoretical explanations from the literatures on the welfare state, state size and neo liberalism. They examine power resources theory, institutions and structural pressures. Second, they provide a temporal update beyond previous studies. While most previous studies end in 2001, they significantly lengthen the period of retrenchment through 2008. Third, they utilize multiple measures of changes and cuts in government spending. Fourth, they employ multiple prioritizations.

Most of the studies find that government spending contributed to agricultural production growth and poverty reduction, but different types of spending may have differential effects on growth and poverty reduction. The purpose of the present study is to review the trends in government expenditure of Bangladesh and its changing compositional patterns. We conclude with some findings and policy implications.

3. Objective of the Study

The objectives of the study are given below:

i) To monitor and analyze the trends in government expenditure.
ii) To examine the changing pattern and composition of government expenditure.
iii) To give some policy measures for effective utilization of Government Budget.

4. Methodology of the Study

The research is mainly based on secondary data which has been collected from various issues of the Statistical Year Book, Statistical Pocket Book, Bangladesh Economic Review published by Ministry of Finance (MOF), Economic Trends of Bangladesh Bank, World Development Indicators (WDI) published by World Bank (WB) etc. The analysis and interpretation of data has been done on both qualitatively and quantitatively. Documentary analysis or Content analysis is used in the present study. To interpret the processed data, descriptive as well as empirical analysis has been conducted. Some statistical techniques such as mean, regression analysis, test of hypothesis (t-test) and time Series Analysis (Least Square Method) were used when or wherever appropriate. Moreover, the Microsoft Excel has also been executed for serving the purpose of reproduction of various graphs by utilizing the given data.

In our study, government expenditure is divided into two categories, namely, revenue expenditure and development expenditure.

5. The trends in Government expenditure

5.1Size of the Government

Total Government spending as percentage of GDP measures the amount a country spends relative to the size of its economy. It is a measure of the level of direct government involvement in overall economic activity. It provides a comparable base for analyzing spending through time. It also shows the relative extent of government intervention in the economy and therefore assists in analysis of social choice. GDP represents the resources available and expenditure represents the share of those resources allocated by the government through Budget. Table 1.1 reports the periodic changes the magnitude of government spending as a ratio of GDP.

Table 1.1: Trends of Government Spending in Bangladesh as a Percentage of GDP

(Values in Per Cent)

Fiscal Year	RE(% of GDP)	DE(% of GDP)	TE(% of GDP)
1974-75	4.19	3.40	7.60
1975-76	5.42	6.71	12.13
1976-77	7.26	8.71	15.97
1977-78	5.79	0.79	6.59
1978-79	6.31	9.02	15.33
1979-80	5.97	10.97	16.94
1980-81	5.06	10.58	16.26
1981-82	6.23	9.63	15.86
1982-83	6.22	8.42	14.63
1983-84	5.63	8.50	14.13
1984-85	6.20	3.73	9.93
1985-86	8.02	7.35	15.37
1986-87	7.35	7.14	14.49
1987-88	7.87	6.78	14.65

Fiscal Year	RE(% of GDP)	DE(% of GDP)	TE(% of GDP)
1988-89	9.29	7.04	16.34
1989-90	9.26	7.36	16.62
1990-91	8.66	6.34	15.00
1991-92	8.65	6.65	15.29
1992-93	9.07	6.90	15.97
1993-94	8.88	8.72	17.60
1994-95	8.77	8.76	17.53
1995-96	9.12	7.69	16.82
1996-97	9.08	7.87	16.95
1997-98	6.32	5.51	11.83
1998-99	7.68	5.69	13.37
1999-00	7.84	6.53	14.36
2000-01	8.15	6.37	14.52
2001-02	8.31	5.16	13.46
2002-03	8.42	5.13	13.55
2003-04	8.24	5.05	13.29
2004-05	8.84	5.05	13.89
2005-06	8.46	4.20	12.66
2006-07	8.75	3.79	12.55
2007-08	9.56	3.39	12.95
2008-09	10.19	3.20	13.40
2009-10	9.90	3.73	13.63
2010-11	9.68	4.12	13.80
2011-12	11.21	3.80	15.01
2012-13	10.13	4.15	14.32
2013-14	11.23	3.65	14.50
2014-15	11.56	4.76	13.28
Average	7.89	6.31	14.21

Source: Statistical Year Book of Bangladesh. Data have been compiled by the Researcher.

It is observed from Table 1.1 that as a proportion of GDP, government spending in Bangladesh rose from 7.60 percent in the year1974-75 to 13.28 percent in the final year of the review period. Similarly, as a proportion of GDP, revenue expenditures increased to 11.56 percent in the FY 2014-15 from 4.19 percent in the FY 1974-75. Obviously, this shows a continuous increasing trend of government spending in Bangladesh as a proportion of GDP. However, as a proportion of GDP, development expenditures in Bangladesh shows a slow and steady increasing trend, from 3.40 percent in the year 1974-75 to 4.76 percent in the year 2014-15.

However, total government outlays as a percentage of GDP in the Organization for Economic Co-operation and Development (OECD) countries ranged from 27 percent in 1960 to 48 percent 1996 (Gwartney, Holcombe, and Lawson 1998), compared to 13 to 35 percent in most developing countries.

6. Trend Growth Rate of Government Expenditure

This section analyzes the growth trend of total expenditure of the Government of Bangladesh (GoB) during the period from 1975 to 2015. Semi-logarithmic trend line is estimated for that period. The semi-logarithmic trend equation showing the relationship between total expenditure as dependent variable (Y) and time (T) as independent variable has been fitted by the least square method and the significance of the coefficient of time variable has been tested by the t-test technique. The estimated form of the semi-logarithmic equation is:

$LogY = A+BT$.....(i)

Where, LogY= TE, A=Constant, B= Estimated trend coefficient i.e; the slope of the trend and T=Point in time. The formula of TGR is as follows:

$TGR= [antilog (B) - 1] \times 100$

This growth rate is known as semi-logarithmic least square trend growth or simply Trend Growth Rate (TGR). It is also a compound growth rate.

Table 1.2 (According to Appendix-1)
Estimated Semi-logarithmic Trend Line of Total Expenditure (1975-2015)
(Estimated Statistics of the Equation: LogY =A+BX)

	Coefficient	Std. Error	t-Statistic	Prob.
C	9.60	0.06	173.42	0.000
Time	0.11	0.002	47.60	0.000

Table- 1.3
Model Summary

R^2	Adjusted R^2	TGR	Std. Error of the Estimate	Durbin- Watson Statistics	Result
0.9843	0.9839	28.82	0.17	1.20	Significant

Note: R^2= Coefficient of Determination

The result presented in Tables 1.2 and 1.3 reveal that the trend line has positive slope and the slope is found statistically significant at five per cent level of significance. The coefficient of the time variable is 0.11, implying that an annual increase in the growth rate of total expenditure by 0.11 per cent. The R^2 value of 0.98 reveals that the independent variable can explain for about 98 per cent of the variations in the dependent variable. The estimate of the t-statistic is found to be highly statistically significant. The trend growth rate of TE is found to be 28.82 per cent.

The estimated regression equation for total expenditure is reproduced below:

LTE= 9.60+ 0.11T.....(ii)

(R^2=0.98)

Thus, it may be concluded from the above analysis that the growth of total revenue has an increasing trend during the period under study.

6.1 Percentage Share of Revenue and Development Expenditures in Total Expenditure

The percentage shares of revenue expenditures and development expenditures in total expenditure give clear idea of the very trend of government spending, the value of them are calculated in Table-1.4

Table- 1.4: Share of Development and Revenue Expenditures in Total Expenditure

(Values in percentage)

Fiscal Year	RE	DE	TE
1974-75	55.20	44.80	100
1975-76	44.65	55.35	100
1976-77	45.45	54.55	100
1977-78	87.96	12.04	100
1978-79	41.16	58.84	100
1979-80	35.22	64.78	100
1080-81	34.94	65.06	100
1981-82	39.30	60.70	100
1982-83	42.49	57.51	100
1983-84	39.86	60.14	100
1984-85	62.46	37.54	100
1985-86	52.17	47.83	100
1986-87	50.71	49.29	100
1987-88	53.73	46.27	100
1988-89	56.89	43.11	100
1989-90	55.71	44.29	100
1990-91	57.74	42.26	100
1991-92	56.55	43.45	100
1992-93	56.79	43.21	100
1993-94	50.46	49.54	100
1994-95	50.04	49.96	100
1995-96	54.25	45.75	100
1996-97	53.57	46.43	100
1997-98	53.39	46.61	100
1998-99	57.41	42.5	100
1999-00	54.57	45.43	100
2000-01	56.13	43.87	100
2001-02	61.69	38.31	100
2002-03	62.12	37.88	100
2003-04	61.99	38.01	100
2004-05	63.64	36.36	100
2005-06	66.80	33.20	100
2006-07	69.76	30.24	100
2007-08	73.82	26.18	100
2008-09	76.09	23.91	100
2009-10	72.61	27.39	100
2010-11	70.12	29.88	100
2011-12	74.70	25.30	100

Fiscal Year	RE	DE	TE
2012-13	73.12	26.88	100
2013-14	75.37	24.63	100
2014-15	74.65	25.35	100
Average	56.64	43.36	100

Source: Statistical Year Book of Bangladesh. Data have been compiled by the Researcher.

It is observed from Table-1.4 that the percentage of revenue expenditure to total expenditure was 55.20 percent in the year 1974-75, which has been increased to 74.65 percent in the year 2014-15. This clearly indicates that government expenditure is increasing in absolute terms to finance more expenditure on current activity. However, the percentage share of development expenditure to total expenditure shows a continuous decreasing trend. It was as high as 44.80 percent in the year 1974-75. However, it decreased and reached 25.35 percent in the final year of the review period. Thus, share of development expenditure exhibits a downward trend.

7. Composition of Government Expenditure

In this study, the composition and pattern of revenue and development expenditures are presented separately in order to trace out the changes during the period of the study.

7.1 Patterns of Revenue Expenditure

Revenue expenditure is a current or consumption expenditure incurred on civil administration (i.e., police, jails and judiciary), defence forces, public health and education. This revenue expenditure is of recurrent type which is incurred year after year. Thus, an expenditure which neither creates assets nor reduces liability is called revenue expenditure, e.g., salaries of employees, interest payment on past debt, subsidies, pension, spending on procurement for its hospitals, spending on operation and maintenance of its assets, etc. Generally, expenditure incurred on normal running of the government departments and maintenance of services is treated as revenue expenditure. It is a short period expenditure and recurring in nature which is incurred every year. The purpose of such expenditure is not to build up any capital asset, but to ensure normal functioning of government machinery. Traditionally, all grants given to state governments are treated as revenue expenditure even though some of the grants may be creation of assets.

Revenue Expenditure consists of various components. The main functional components are Revenue collecting department, Civil Administration, Defense, Education, Health, Civil Works, Interest, and miscellaneous expenditures.

Table 1.5 shows the patterns of revenue expenditure under different heads.

(Amounts in million taka)

Fiscal Year	RCD*	Civil Administration	Defence	Education	Health	Civil Works	Interest Payment	ME**	TRE
1974-75	164.41 (3.11)	1289.81 (24.45)	708.45 (13.43)	822.13 (15.59)	181.44 (3.44)	520.57 (9.87)	312.80 (5.93)	1275.37 (24.18)	5274.98 (100.00)
1979-80	340 (2.88)	3055 (25.87)	1782 (15.08)	1772 (15)	660 (5.59)	694 (5.88)	730 (6.18)	2777 (23.51)	11810 (100.00)
1984-85	753 (2.57)	9970 (34.03)	4935 (16.84)	4939 (16.86)	1605 (5.48)	793 (2.71)	3323 (11.34)	2982 (10.18)	29300 (100.00)
1989-90	1524 (2.23)	22902 (33.53)	11080 (16.22)	10819 (15.84)	3613 (5.28)	3270 (4.79)	7260 (10.63)	7845 (11.48)	68313 (100.00)
1994-95	2404 (2.33)	25901 (25.10)	19320 (18.72)	19716 (19.11)	6692 (6.50)	4369 (4.23)	13774 (13.35)	11003 (10.66)	103179 (100.00)
1999-00	6663 (3.59)	52855 (28.44)	32734 (17.62)	32568 (17.53)	9720 (5.23)	5653 (3.04)	35537 (19.12)	10090 (5.43)	185820 (100.00)
2004-05	5292 (1.61)	70630 (21.55)	40854 (12.46)	50613 (15.44)	17870 (5.47)	10355 (3.16)	62809 (19.16)	69313 (21.15)	327736 (100.00)
2009-10	8900 (1.29)	118240 (17.21)	77430 (11.27)	117960 (17.17)	40030 (5.82)	35640 (5.19)	146460 (21.32)	142450 (20.73)	687110 (100.00)
2011-12	10090 (0.99)	95020 (9.23)	119510 (11.61)	140990 (13.70)	53070 (5.16)	48690 (4.73)	180320 (17.52)	381340 (37.06)	1029030 (100.00)
2012-13	11080 (0.93)	98234 (8.56)	129023 (11.23)	143823 (15.34)	56730 (5.34)	54230 (4.12)	183908 (18.43)	398735 (36.05)	1075763 (100)
2013-14	13245 (0.98)	99081 (7.85)	132439 (11.43)	156782 (14.90)	61234 (5.90)	56902 (4.78)	198674 (17.42)	394513 (36.74)	812870 (100)
2014-15	14529 (0.99)	99012 (9.29)	142390 (12.34)	159087 (16.76)	56321 (6.12)	61238 (5.45)	201348 (19.67)	401389 (29.38)	956514 (100)

*Notes: *RCD stands for Revenue Collecting Deptt, ME** stands for Miscelleneous Expenditures. (Figures in parenthesis indicates percentage share of heads to the Revenue Expenditure).*

Source: Statistical Year Book of Bangladesh. Data have been compiled by the Researcher.

It is revealed from Table 1.5 that all the components of revenue expenditures have increased in absolute terms. However, the share of expenditure on revenue collecting department in total revenue expenditure fell to 9.23

percent in the year 1974-75 from 24.45 percent in the year 1974-75. Similarly, the share of expenditures on civil administration in total revenue expenditure decreased from 24.45 percent in the year 1974-75 to 9.23 percent in the year 2014-15. The share of expenditure on defense in total revenue expenditure increased from 13.43 percent in the year 1974-75 to 18.72 percent in the year 1994-95. But thereafter it began to fall. In 2014-15, it reached 11.61 percent of the total revenue expenditure. The share of expenditure on education in total revenue expenditure shows an increasing trend till 1994-95, it rose from 15.59 percent in the year 1974-75 to 19.11 percent in the year 1994-95. But thereafter it came down to 13.70 percent in the final year of the review period. However, the share of expenditure on health in total revenue expenditure rose from 3.44 percent to 5.16 percent in the year 2014-15. The expenditure on interest payments constitutes the single largest component of revenue expenditure. The share of expenditure on interest payments tripled from 5.93 to 17.52 during the study period. The sharp rise in interest payments is directly linked to the increasing reliance on borrowings and rising interest rates, particularly on small savings and provident funds.

7.2Patterns of Development Expenditure

Development expenditures mainly include financing of public investment projects, which include the construction of public infrastructure, such as roads, bridges, electricity grids and telecommunication. The Annual Development Program (ADP) specifies the list of projects to be implemented during a particular fiscal year. The ADP details the development expenditure programs sector-wise, ministry- wise, and agency-wise. At a very early stage in the budget process, agreement is reached at the highest level, with the participation of Budget Monitoring and Resource Committee (BMRC) headed by the Minister of Finance on overall resources and expenditures for any particular year.

The patterns of public development spending have undergone significant changes, reflecting the changing developmental role of the government under the economic reforms (Mahmud, 2002a; Ahmed, 2005).

Development expenditure in Bangladesh has been categorized into eight sectors, namely, Agriculture, Industry, Power and Natural Resource, Transport and Communication, Education and Training, Health, Physical Planning and Housing and others.

Sector share of different categories in total development expenditure over the period of 1975-2015 is presented in Table 1.6.

Table 1.6: Composition and Patterns of Development Expenditures(Selected Years)
(Amounts in million taka)

Fiscal Year	Agriculture*	Industry	Power and Natural Resources	Transport and communications	Education and Training	Health	Physical Planning and Housing	Others	TDE
1974-75	1538.9 (36.57)	643.8 (15.29)	292.3 (6.95)	932 (22.15)	206.2 (4.89)	169.1 (4.02)	334.6 (7.95)	163.6 (0.45)	4208.5 (100.00)
1979-80	8267.39 (38.05)	2625.86 (12.09)	3349 (15.41)	4669.97 (21.50)	446.61 (2.06)	541.27 (2.49)	1172.94 (5.39)	652.65 (3.00)	21725.69 (100.00)
1984-85	13785 (38.47)	3140 (8.76)	10515 (29.34)	4000 (11.16)	1300 (3.63)	724 (2.02)	1077 (3.01)	450 (3.62)	35837 (100.00)
1989-90	15915.81 (29.31)	5846.77 (10.76)	13488.25 (24.84)	10486.52 (19.31)	2833.5 (5.22)	538.61 (0.99)	2724.29 (5.02)	2472.87 (6.90)	54306.62 (100.00)
1994-95	20928 (20.31)	2031 (1.97)	14509 (14.08)	28403 (27.57)	14992 (14.55)	3783 (3.67)	10687 (10.37)	2744 (7.47)	103030 (100.00)
1999-00	36761 (23.76)	2560 (1.65)	26530 (17.15)	32000 (20.68)	20640 (13.34)	12460 (8.05)	19880 (12.85)	3880 (2.51)	154710 (100.00)
2004-05	39411 (21.05)	4812 (2.57)	38934 (20.79)	41502 (22.16)	20283 (10.83)	13418 (7.17)	22932 (12.25)	5968 (3.19)	187260 (100.00)
2009-10	63424 (24.47)	4428 (1.71)	33352 (12.87)	36373 (14.03)	41548 (16.03)	27110 (10.46)	38743 (14.95)	11492 (4.43)	259170 (100.00)
2011-12	75336 (21.61)	4471 (1.28)	67548 (19.38)	60096 (17.24)	52130 (14.96)	30270 (8.68)	50930 (14.61)	17046 (4.89)	348550 (100.00)
2012-13	76578 (23.41)	4430 (1.45)	65098 (19.89)	67834 (17.34)	65341 (15.23)	31260 (8.45)	52134 (13.45)	17683 (3.56)	362675 (100)
2013-14	81234 (21.34)	4531 (1.98)	66514 (18.78)	66451 (18.76)	62134 (14.38)	34521 (8.32)	53178 (16.34)	18623 (4.03)	387186 (100)
2014-15	87639 (24.17)	4589 (1.56)	66759 (18.64)	65247 (17.56)	62345 (15.67)	37682 (8.16)	58145 (17.23)	16563 (2.99)	398969 (100)

Source: Statistical Year Book of Bangladesh. Data have been compiled by the Researcher.
Note- The parenthesis in the table indicate percentage share of different heads to total development expenditure

7.2.1 Spending in the Agricultural Sector

The agricultural sector in the Bangladesh economy is traditionally defined to include crop production, marketing of food (including public food marketing), livestock, fisheries, and forestry production. This study presents sector-wise distributions in which agriculture, rural development and institutions, and flood control and water resources are shown aggregately.

Agriculture sector is one of the prominent drivers of economic development in Bangladesh. It is revealed from Table 1.6 that the single biggest component is Agriculture which accounted for 36.57 in the year 1974-75, but reduced to 24.17 per cent in the final year of the review period. Thus, the change clearly indicates a rapid movement away from an agriculture-dominated economy.

7.2.2 Spending in the Industry Sector

It is also observed that the share of industry shrank drastically, from 15.29 per cent in the first period to only 1.56 per cent in the final period.

Thus, it is clear that the allocations to manufacturing industries have been reduced to almost an insignificant portion, showing that the government has virtually withdrawn from investment in setting up new industries.

7.2.3 Spending in the Power and Natural Resources Sector

The percentage share of Power and Natural Resources in total development expenditures has tripled from 6.95 per cent in the FY 1974-75 to 18.64 per cent in the year 2014-15.

7.2.4. Spending in the Transport and Communications Sector

Transportations activities of the government include expenditure on construction of railways, roadways, air, national highways etc. The transport and communications sector share declined slightly between FY 1975-2015 from 22.15 per cent to 17.56 per cent.

7.2.5. Spending in the Education and Training Sector

Till recently expenditure on education and training and health were regarded as non-developmental type. It has now been realized that the expenditure on education and public health promotes the growth of what is called human capital which promotes economic growth as much as physical capital, if not more. Therefore, at present, expenditure on education and training and health are generally regarded as developmental expenditures.

It is seen from Table 3.4.2 that the proportional developmental expenditures to education and health have continuously increased through the reform period beginning in the early 1980s. The education and training sector share tripled from 4.89 per cent in the FY 1974-75 to 14.96 percent in the FY 2014-15.

7.2.6. Spending in the Health Sector

The proportional allocation of health sector continuously increased over the past four decades; the share has been doubled from 4.02 per cent to 8.68 per cent between periods 1975-2015.

7.2.7. Spending in the Physical Planning and Housing Sector

The share of Physical Planning and Housing has been doubled from 7.95 per cent to 14.61 per cent between the periods 1975-2015.

8. Summary, Policy Implications and Conclusions

The principal objective of the present study was to find out the changing pattern and compositions of the government expenditure in Bangladesh and its trends over the period of 1975-2015. The study was mainly based on tabular and graphical representation. Some statistical techniques were used while necessary.

8.1 Summary of the Findings

From the preceding analysis, a number of observations can be made.

- It is found that total expenditure as percentage of GDP is on an average 14.21 per cent. It is also found that revenue expenditure as percentage of GDP is on an average 7.89 per cent. On the contrary, the development expenditure as percentage of GDP is very lower, on an average 6.31 per cent.
- It is found that that the trend line equations of total expenditure has positive slope and the slope was found statistically significant at 5 per cent level of significance. It can be inferred from the coefficient of the time variable that the growth rate of total expenditure increases annually by 0.11 per cent. It, therefore, suggests that during the study period from 1975 to 2015 government expenditures have an increasing trend.
- It is seen from the study that the government spending in Bangladesh has increased over time steadily, but there has been a dramatic change in the composition and pattern of development expenditure. On the contrary, the allocations in the revenue expenditure do not show any marked or systematic changes. This is to be expected, given the fact that, the economic reforms in Bangladesh have not involved any significant restructuring of the regular functionaries of the government.
- It is revealed from the study that the single biggest component of development expenditure is agriculture which accounted for 36.57 in the year 1974-75, but reduced to 21.61 per cent in the final year of the review period.
- It is also evident from the study that allocations to manufacturing industries have been reduced to almost an insignificant proportion, showing that the government has virtually withdrawn from investment in setting up new industries. By contrast, the government has concentrated more on providing public goods in the form of education and health, physical infrastructure and rural development.

8.2Policy Implications

The study has suggested some pragmatic policy measures for the regulators, and policy makers. The suggested policy measures are as follows:

i. Government of Bangladesh (GoB) should reduce their spending in unproductive sectors such as defense and curtail excessive spending in those areas that do not provoke economic chain reaction in the aggregate economy.
ii. Government of Bangladesh (G0B) should increase spending in agriculture, particularly on production-enhancing investments such as agricultural enhancing research and equipment. This type of spending will not only yield high returns to agricultural production, but will also have a large impact on poverty reduction since most of the poor still reside in rural areas and their main source of livelihood is agriculture.
iii. Government should raise the quality of public spending, which will require better design and implementation of public programmes through competitive procurement, strengthening audits, involvement of beneficiaries, and service delivery through private sector wherever possible;
iv. A complete and vigorous cost-benefit analysis must be done before receiving loan for any project from external sources as well as from domestic borrowings .It will ascertain the benefit from any project;
v. Government should stop project financing with high interest rate, short-maturity suppliers' credit from abroad;
vi. Government should reduce borrowing from banks for financing non-development expenditure;

8.3Conclusion

The main contributions of the study are the identification of the areas to which public expenditure should be directed. The study is, therefore, valuable from the policy perspective. It is envisaged that the findings would form the basis of policy prescriptions towards formulating a more effective state public finance policy. Further study may be done to investigate the effectiveness of public spending through the prism of equity, accountability, transparency, and appropriateness. Again, it is possible to include other developing countries as the sample of analysis.

References

Afonso, A; Schuknecht, L; and Tanzi, V. (2008). Income distribution determinants and public spending efficiency. *European Central Bank Working Paper Series No: 861.*

Arshad, N; and Mustapha Z. H. (1986). Malaysian government expenditure: an analysis of pattern and probable distribution impact. Analysis JILID 3, Bil.1. Dan.2

Barro, J. R. (1990). Government spending in a simple model of endogeneous growth. *Journal of Political Economy. 20*(2), 221-247.

Bhat, R; and Jain, N. (2004). Analysis of public expenditure on health using state level data. Indian Institute of Management. Ahmedabad.

Bhatia, H.L. (2003). *Public Finance* (24th Revised Ed). New Delhi: Vikas Publishing House PVT Ltd.

Brady, D; & Lee, Y. H. (2014). The rise and fall of government spending in affluent democracies, 1971-2008. *Journal of European Social Policy, 24* (1), 56-79.

Chowdhury, O. M; and Sen, B. (1998). Public expenditure and social development in Bangladesh. *Center on Integrated Rural Development for Asia and the Pacific* (CIRDAP) ISBN 984-8104-28-1.

Cooper, J. (2013). Russian military expenditure: data, analysis, and issues. FOI-R-3688-SE.

Fan, S., L. Zhang; and N. Rao (2003). Public spending in developing countries: trend, determination and impact. *EPDP Discussion Paper,* 99. Washington, D.C.: International Food Policy Research Institute.

Gujarati, D. N. and Porter, D.C. (2009). *Basic Econometrics* (5th Ed), New York: McGraw-Hill.

Gupta, S., Clements, B; Baldacci, E; and Mulas- Granados, C. (2005). Fiscal policy, expenditure composition and growth in low-income countries. *Journal of International Money and Finance,* 24, 441-463, retrieved from www.elsevier.com/locate/econbase.

Gwartney, j; Holcombe, R; & Lawson, R. (1998). The scope of government and the wealth of nations. *Cato Journal.* 18(2), 163-190.

Hassan, G. M. (2008). Public expenditure, employment and poverty in Bangladesh: an empirical analysis. *CPD Occasional Paper series*, Dhaka: ISSN 1818-1597.

Kelly, T. (1997). Public expenditure and growth. *Journal of Development Studies*, *34*(1), 60-84.

Mahmud, W. (2002). National budgets, social spending and public choice: the case of Bangladesh. *IDS Working Paper* 162, Brighton, UK: Institute of Development Studies, University of Sussex.

Peacock, A. T. and Wiseman, J. (1961). The growth of public expenditure in the United Kingdom. Princeton, NJ: Princeton University Press

Rajkumar, S. A., Swaroop, V. (2008). Public spending and outcomes: does governance matter?*Journal of Development Economics 86,* 96-111.

Singh, B., and Sahni, B. (1984). Causality between public expenditure and national income. *The Review of Economics and Statistics*, (Vol. 66, No.4. pp. 630-644).

Tanzi, V; & H, Zee. (1997). Fiscal policy and long run growth. *IMF Staff Papers 44* (2), 179-209.

Appendix-1

Dependent Variable: Total Expenditure		Method: Least Squares		
Sample: 1 38				
Included observations: 38				
LTE=C(1)+C(2)*T				
	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	9.602240	0.055369	173.4236	0.0000
C(2)	0.117818	0.002475	47.60449	0.0000
R-squared	0.984363	Mean dependent var		11.89968
Adjusted R-squared	0.983928	S.D. dependent var		1.319672
S.E. of regression	0.167300	Akaike info criterion		-0.686857
Sum squared resid	1.007618	Schwarz criterion		-0.600668
Log likelihood	15.05028	Hannan-Quinn criter.		-0.656192
F-statistic	2266.188	Durbin-Watson stat		1.202920
Prob(F-statistic)	0.000000			